

### Abstract

To answer the security needs of the market, a preferred embodiment was developed. A preferred embodiment provides real-time network security vulnerability assessment tests, possibly complete with recommended security solutions. External vulnerability assessment tests can emulate hacker methodology in a safe way and enable study of a network for security openings, thereby gaining a true view of risk level without affecting customer operations. Because this assessment can be performed over the Internet, both domestic and worldwide corporations benefit. A preferred embodiment's physical subsystems combine to form a scalable holistic system that can be able to conduct tests for thousands of customers any place in the world. The security skills of experts can be embedded into a preferred embodiment systems and automated the test process to enable the security vulnerability test to be conducted on a continuous basis for multiple customers at the same time. A preferred embodiment can reduce the work time required for security practices of companies from three weeks to less than a day, as well as significantly increase their capacity. Component subsystems typically include a Database, Command Engine, Gateway, multiple Testers, Report Generator, and an RMCT.